

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1–2, 4–5, 9–12, and 14–21 are pending. Claims 1 and 14 are independent.

II. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1–2, 4–5, 9–12 and 14–21 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No 6,539,353 to Jiang et al. (hereinafter, merely “Jiang”) in view of U.S. Publication No. 2002/0128821 to Ehsani et al. (hereinafter, merely “Ehsani”), in view of U.S. Patent No. 6,067,510 to Kimura et al. (hereinafter, merely “Kimura”), and further in view of U.S. Patent No. 5,797,123 to Chou et al. (hereinafter, merely “Chou”).

As understood by Applicant, Jiang relates to a method and apparatus for speech recognition. The method and apparatus convert an analog speech signal into a digital signal and extract at least one feature from the digital signal.

As understood by Applicant, Ehsani relates to the creation of grammar networks that can regulate, control, and define the content and scope of human-machine interaction in natural language voice user interfaces.

As understood by Applicant, Kimura relates to a machine interpreter and method for providing a structure in which words are sorted and hierarchically displayed as candidates for substitution in particular order by the display.

As understood by Applicant, Chou relates to a key-phrase detection and verification method that can be advantageously used to realize understanding of flexible (i.e., unconstrained) speech.

Applicant respectfully submits that the claims of the present application are patentable over the cited references for at least the following reasons.

A. Cited references do not teach all claim recitations

Claim 1 recites, *inter alia*:

“... wherein said semantic information includes description of said sub-phrases and said pragmatic information includes connecting information connecting said sub-phrases to actual situation, application, and/or action;

... wherein a language model is used containing at least a recognition grammar built up by at least a low-perplexity part and a high-perplexity part, each of which being representative for distinct low- and high-perplexity classes of speech elements;...” (Emphasis added)

Applicant respectfully submits that nothing has been found in Jiang, Ehsani, Kimura, or Chou, taken alone or in combination, that would teach or suggest the above-identified features of claim 1.

First, Jiang, Ehsani, Kimura, and Chou, taken alone or in combination, do not teach or suggest connecting information connecting said sub-phrases to actual situation, application, and/or action, as recited in claim 1. The Office Action relies on Ehsani, paragraphs 216 and 102, for a teaching of connecting information. However, Applicant respectfully submits that the cited portions of Ehsani, and indeed the entirety of Ehsani, merely teach semantic information, rather than connecting information connecting said sub-phrases to actual situation, application, and/or action, as recited in claim 1.

Applicant respectfully submits that even though Ehsani may use the phrase “pragmatic information,” the type of information disclosed by Ehsani is actually merely semantic information. That is, Ehsani does not teach, disclose, or even suggest connecting information that connects sub-phrases to actual situation, application, and/or action, as recited in claim 1. The example given by Ehsani and quoted by the Office Action on pages 2-3 of processing the speech phrase “to a large extent” is not an actual situation, application, or action, but merely semantic information of a grammatical construct. Therefore, the applied combinations fail to render claim 1 unpatentable.

Second, the Office Action concedes that Ehsani, Kimura, and Jiang fail to disclose or suggest that a language model is used containing at least a recognition grammar built up by at least a low-perplexity part and a high-perplexity part, each of which being representative for distinct low- and high-perplexity classes of speech elements, as recited in claim 1. The Office Action relies on column 2 (lines 61-65) and column 6 (line 66) to column 7 (line 5) of Chou for a teaching of this feature. After a careful review of the cited portions of Chou, Applicant respectfully submits that the cited portions of Chou, and Chou in general, do not disclose or suggest a language model is used containing at least a recognition grammar built up by at least a low-perplexity part and a high-perplexity part, each of which being representative for distinct low- and high-perplexity classes of speech elements, as recited in claim 1. Therefore, the applied combinations fail to render claim 1 unpatentable.

B. No motivation or suggestion to combine cited references

Applicants respectfully submit that there is no motivation, suggested or implied, within the cited references, or within the knowledge of one of ordinary skill, to combine the reference teachings to make the claimed invention. MPEP §2145(X)(c) states:

As discussed in MPEP §2143.01, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings. The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references, as discussed in the aforementioned section. (Emphasis added)

The Office Action has failed to provide a credible motivation to combine the reference teachings, as the motivation suggested in the Office Action appears gleaned from Applicant's own disclosure. Applicant respectfully submits that there is no motivation, either in the references themselves or from the knowledge of one of ordinary skill, to combine Ehsani, Kimura, Jiang, and Chou. The motivations provided by the Office Action appears to be inspired by Applicant's own disclosure. Applicant respectfully submits that a motivation, in order to be proper, must be taken from the prior art *before applicant's date of invention*, and *cannot be* gleaned from Applicant's own disclosure.

C. Impermissible hindsight reasoning and mosaic reconstruction

Applicants respectfully submit that *impermissible hindsight* reconstruction of the claimed invention using elements of the prior art is *not* allowed under 35 U.S.C. §103 (see MPEP §2142 for a discussion of impermissible hindsight).

Furthermore, MPEP §2143.01(III) states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (Emphasis in original.)

Applicants respectfully submit that the Office Action has merely created a mosaic of features from the prior art, without either a clear motivation or a suggestion of the desirability of the combination.

Additionally, MPEP §2143.01(IV) states:

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). (Emphasis added)

As noted above, the Office Action has merely provided references to teach individual aspects of the claimed invention in total isolation, and has not established a *prima facie* case of obvious. The Office Action has failed to provide an objective reason to *combine* the disparate and unrelated teachings of the references into the claimed combination. The Office Action has merely taken elements from Ehsani, Kimura, Jiang, and Chou, without a clear or convincing argument or motivation as to why a person of ordinary skill in the art, *practicing before Applicant's disclosure was available*, would be lead to make the claimed combination. In fact, there is nothing in the prior art to suggest the desirability of the claimed combination.

Therefore, for at least the reasons stated above, Applicant respectfully submits that claim 1 is patentable.

Claim 14 is similar, or somewhat similar, in scope and is therefore patentable for similar, or somewhat similar, reasons.

III. DEPENDENT CLAIMS

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited references, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Applicant respectfully submits that all of the claims are in condition for allowance and requests early passage to issue of the present application.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicant

By 
Thomas F. Presson
Reg. No. 41,442
(212) 588-0800